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1. Spindle or worm drive for adjusting devices in motor vehicles, more particularly for seat adjusting devices, window lifters and sliding roofs, with a fixed spindle (5) or a fixed toothed rack (51) which is fixed on a first of two relatively displaceable parts, with a gear (9,9') which is mounted on the second of the relatively displaceable parts, and with a gear housing (7) for holding the gear, with the gear housing (7) consisting of at least two housing plates (71, 72, 71a, 71b, 72a, 72b, 77a, 77b, 78, 79) which can be fixed against each other by means of plug-type connectors, characterised in that the position of the housing plates (71, 72, 71a, 71b, 72a, 72b, 77a, 77b, 78, 79) is fixed relative to each other in all three-dimensional directions by means of the plug-type connectors and that the plug-type connectors are formed at the same time as supporting connecting joints which absorb the gear forces.

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2. Drive according to claim 1 characterised ~~claim characterised~~ in that the housing plates (71, 72, 71a, 71b, 72a, 72b, 77a, 77b, 78, 79) are fixed against each other solely at the plug-type connections.

3. Drive according to claim 1 or 2 characterised in that the gear housing (7) consists of two L-shaped housing plates (77a, 77b).

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4. Drive according to claim 1 or 2 characterised in that the gear housing (7) consist of at least two pairs of opposing disc-like housing plates (71a, 71b, 72a 72b) wherein the housing plates (71a, 71b, 72a, 72b) which are arranged in pairs are preferably identical in design.

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5. Drive according to claim 1 or 2 characterised in that the gear housing (7) consists of a U-shaped (78) and a disc like housing plate (79).

pairs of opposing disc-like housing plates (71a, 71b, 72a 72b) wherein the housing plates (71a, 71b, 72a, 72b) which are arranged in pairs are preferably identical in design.

5. Drive according to one of claims 1 to 3 **characterised in that** the gear housing (7) consists of a U-shaped (78) and a disc-like housing plate (79).

6. Drive according to claim 1 **characterised in that** the raised areas (76, 76', 76'') of the plug-type connections extend along the plane of the housing plates (72, 72a, 72b, 77, 78) and the associated recesses (75, 75', 75'') extend transversely to the plane of the housing plates (72, 72a, 72b, 77, 78).

7. Drive according to claim 6 **characterised in that** the recesses are formed as through openings (75, 75', 75'').

8. Drive according to claim 6 **characterised in that** the raised areas are formed as webs (76, 76', 76'').

9. Drive according to one of claims 6 to 8 **characterised in that** the raised areas (76, 76', 76'') of the plug-type connectors have in the assembly direction parallel surfaces (761, 762, 761', 762') associated with matching recesses (75, 75', 75'') with surfaces (751, 752, 751', 752') which are likewise parallel in the assembly direction.

10. Drive according to one of claims 6 to 8 **characterised in that** the raised areas (76, 76', 76'') of the plug-type connectors have surfaces running conical in the assembly direction and associated with recesses (75, 75', 75'') having surfaces (751, 752) which where necessary are parallel in the assembly direction so that during assembly a press fit is achieved.

11. Drive according to one of claims 6 to 8 **characterised in that** the raised areas (76, 76', 76'') of the plug-type connectors form at first a play fit with the recesses (75, 75', 75'') and that the fixing of the housing plates (72a, 72b, 77, 78) is achieved by plastic deformation of the material in the area of the plug-type connectors.

12. Drive according to ~~one of the preceding claims~~ claim 1 **characterised in that** the housing plates (72a, 72b, 77, 78) are made from sintered material, cast material, steel or plastics.

13. Drive according to ~~one of the preceding claims~~ claim 1 **characterised in that** at least a part of the bearing points (73, 73a, 73b, 74, 74', 74'', 74a, 74b) of the gear elements (91, 91', 92, 93, 94) are integrated in the housing plates (72a, 72b, 77, 78).

14. Drive according to ~~one of the preceding claims~~ claim 1 **characterised in that** the gear (9) consists of a threaded spindle (5), a spindle nut (92) with an external worm wheel teeth (92) and a drive worm (91) engaging therewith.

15. Drive according to ~~one of the preceding claims~~ claim 1 **characterised in that** the gear (9) comprises a toothed rack (51), a worm (94) with a worm wheel (93) associated therewith and a drive worm (91') wherein the worm (94) lies on an axis with the worm wheel (93) and is fixedly connected to same.

16. Drive according to ~~one of the preceding claims~~ claim 1 **characterised in that** the threaded spindle (5) is mounted in the hollow cavity (31) of a box-profile type guide rail (3, 4) of a longitudinal seat adjustment device wherein the threaded spindle (5) is fixed through its ends on the bottom rail (4) which is fixed on the vehicle whilst the gear housing (7) is fixed on the top rail (3) which is displaceable relative thereto.

17. Drive according to claim 16 **characterised in that** the gear housing (7) is mounted in a U-shaped gear socket (81) of a holder (8) whose arms (82a, 82b) are provided for fixing the gear (9) on the top rail (3).

18. Drive according to claim 16 and 17 **characterised in that** the arms (82a, 82b) of the holder (8) extend over the entire length of the top rail (3) and support fastening openings (83) associated with the fastening openings (30) of the top rail (3) so that the holder (8) can be connected to the top rail (3) and reinforces same.

19. Drive according to ~~claims 16 to 18~~ claim 16 **characterised in that** the fastening openings (83) of the holder (8') are

formed as fastening elements (84) with internal threads, preferably in the form of passages, which project into the hollow cavity (31).

20. Drive according to ~~claims 16 to 19~~ **characterised in that** the gear (9) is pre-assembled as a complete unit and, installed in the holder (8'), can be pushed into the hollow cavity (31) of the rail guide (3, 4) where it can be screwed to the top rail (3) through the fastening openings (83).

21. Drive according to ~~one of claims 16 to 20~~ **characterised in that** the end areas (85a, 85b) of the holder (8') are angled and designed so that they substantially fill out the free cross-sectional area of the top rail (3) and/or the bottom rail (4).

22. Drive according to ~~one of the preceding claims~~ **characterised in that** uncoupling elements (10a, 10b) of rubber or plastics are mounted to eliminate noise and compensate for tolerances between the gear (9) and the arms (86a, 86b) of the gear socket (81) of the holder (8).

23. Drive according to ~~one of the preceding claims~~ **characterised in that** ideal deformation points (87a, 87b) are formed between the arms (86a, 86b) of the gear socket (81) and the arms (82a, 82b) of the holder (8') so that when a predetermined maximum boundary strain is exceeded the arms (86a, 86b) swivel sideways and clamp the threaded spindle (5).

24. Drive according to ~~one of the preceding claims~~ claim 1 **characterised in that** the ends of the threaded spindle (5) are mounted in vibration-damping sleeves or the like to eliminate noise.

25. Drive according to ~~one of the preceding claims~~ claim 1 **characterised in that** for a window lifter the threaded spindle (5') is fixed in the vehicle door so that the threaded spindle (5') points in the direction of movement of the window pane (12) and that the gear which is connected to the threaded spindle (5') is connected directly or indirectly to the lower edge (12) of the window pane (12).

26. Drive according to ~~one of the preceding claims~~ claim 1, **characterised in that** the spindle or worm drive is a constituent part of an adjustment device for adjusting the seat height, seat incline, seat cushion depth, head restraint and/or backrest.

~~27. Method for assembling a gear housing for a spindle or~~ worm drive according to the preceding claims, **characterised in that** the gear elements (91, 92, 93, 94) and housing plates (72a, 72b, 77, 78) are prefitted complete and inserted into a device which holds the housing (7) with slight holding forces around the outer contour, that the gear elements (91, 92, 93, 94) are turned for the purpose of aligning the bearing points (73a, 73, 74a, 74b) and that after alignment by increasing the holding forces the position of the gear elements (91, 92, 93, 94) and housing plates (72a, 72b, 77, 78) relative to each other is fixed and finally their position is secured.

27. Method for assembling a gear housing for a spindle or worm drive according to ~~one of the preceding claims~~ claim 1 in which

a) the gear elements (91, 92, 93, 94) and housing plates (72a, 72b, 77, 78) are prefitted completed wherein the housing plates (72a; 72b; 77, 78) are fitted together and the plug-type connections are formed as supporting connecting joints absorbing the gear forces,

b) the gear elements (91, 92, 93, 94) and housing plates (72a, 72b, 77, 78) are inserted into a device which holds the housing (7) with sufficiently light holding forces around the outer contour so that that the housing plats (72a, 72b, 77, 78) can be aligned when the gear elements (91, 92, 93, 94) are turned,

c) the gear elements (91, 92, 93, 94) are turned for the purpose of aligning the bearing points (73a, 73, 74a, 74b) of the gear elements which are provided on the housing plates (72a, 72b, 77, 78),

d) and that after alignment by increasing the holding forces the position of the gear elements (91, 92, 93, 94) and housing plates (72a, 72b, 77, 78) relative to each other is secured and the position of the housing plates is permanently fixed in all three-dimensional directions through action on the plug-type connectors.

28. Method for assembling a gear housing for the spindle or worm drive according to claim 27 **characterised in that** the gear elements (91, 92, 93, 94) are turned about at least 360° and are then held in this position and fixed.

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29. Method for assembling a gear housing for the spindle or worm drive according to claim 27 **characterised in that** the gear elements (91, 92, 93, 94) are driven at a speed which is above the nominal speed of the gear (9) and during rotation of the gear elements (91, 92, 93, 94) the position of the housing plates (72a, 72b, 77, 78) are fixed relative to each other.

30. Method for assembling a gear housing for the spindle or worm drive according to claim 27 **characterised in that** the fixing of the housing plates (72a, 72b, 77, 78) is produced by staking the material in the area of the plug-type connectors, but outside of the area of the bearing bores (74a, 74b) for the spindle nut (92).

31. Method for assembling a gear housing for the spindle or worm drive according to claim 27 **characterised in that** the fixing of the housing plates (72a, 72b, 77, 78) is undertaken by laser welding or by casting the plug-type connectors.

32. Method for assembling a gear housing for the spindle or worm drive according to claim 27 **characterised in that** the fixing of the housing plates (72, 72b, 77, 78) is carried out by sticking the plug-type connectors.

33. Method for assembling a gear housing for the spindle or worm drive according to claim 27 **characterised in that** holding the outer contour of the housing plates (72a, 72b, 77, 78), turning the gear elements (91, 92, 93, 94) and staking the plug-type connectors are carried out in one combined assembly device.

34. Spindle drive for adjusting devices in motor vehicles wherein a threaded spindle (5) is tensioned rotationally secured between two holders (5a, 5b) at the ends, wherein the threaded spindle is associated with a spindle nut mounted in a gear, **characterised in that** the threaded spindle (5) is fixed through at least one ideal break point in at least one holder (5a, 6b) and that at least one end of the threaded spindle (5) is formed as a positive locking element (66a) which can be connected to a rotating tool in order to overcome the ideal break point for the purpose of an emergency operation of the drive.

35. Spindle drive according to claim 34 **characterised in that** a threaded element (60) which has a groove (61) as a local material weakened area is welded to one of the holders (6a, 6b) and the threaded element (60) is squashed through this material weakening with the threaded spindle (5).

36. Spindle drive according to claim 34 **characterised in that** the threaded element (60''') has on the side remote from the holder (6a, 6b) a distance sleeve (69) for defining the travel path of the top rail (3) on the bottom rail (4).

37. Spindle drive according to claim 34 **characterised in that** for holding the threaded spindle (5) one of the holders (6a, 6b) has a passage (62) which is squashed with the threaded spindle (5) at at least one place.

38. Spindle drive according to claim 34 **characterised in that** a threaded element (60) is welded to one of the holders (6a, 6b) and this is associated with a counter nut (63) for fixing the position of the threaded spindle (5).

39. Spindle drive according to claim 34 **characterised in that** a nut (34) which is held secured against rotation in positive locking engagement through a stop (6e) on one of the holders (6a, 6b) is welded to the threaded spindle (5) at at least one spot so that the welding spot (60a) is formed as an ideal break point.

40. Spindle drive according to claim 34 **characterised in that** an anti-rotation lock preferably made of plastics and mounted secured against rotation on the threaded spindle (5) is inserted with positive locking engagement into a threaded spindle receiving bore (65b) of a security plate (65) wherein the anti-rotation lock (66) is destroyed during emergency operation of the threaded spindle (5).

41. Spindle drive according to claim 34 **characterised in that** the security plate (65) fixes through a bracket (65a) the position of a nut (64') which is mounted on the

threaded spindle (5) and secures the position of the threaded spindle (5).

42. Spindle drive according to claim 34 **characterised in that** a plastics security member (67a) is shaped in a threaded spindle receiving opening (67) of both holders (6a, 6b) so that the circular round cross-section of the threaded spindle receiving openings (67) remains secure and the width b of the plastics security member (67a) is greater than the diameter d of the threaded spindle receiving opening (67) wherein in the case of an emergency operation the plastics security member (67a) can be removed and the threaded spindle (5) can escape into the space which becomes available.